UNITED STATES PATENT AND TRADEMARK OFFICE

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10/508,813	09/23/2004	Takehito Yamaguchi	2004-1397A	5951

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WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER
TYLER, NATHAN K

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *27 February 2008*.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *30-41* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *30-41* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *23 September 2004* is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some *   c)☐ None of:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20040923; 20080619*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, filed 27 February 2008, with respect to claims 1-29 and 42-44 have been fully considered and are persuasive. The rejection of claims 1-29 and 42-44 has been withdrawn.

2.   Applicant's arguments regarding claims 30-41 have been fully considered but they are not persuasive.

Applicant argues that Mixer does not disclose printing a print job file if it is judged that the file is not a microcode update file. In response, the Examiner respectfully disagrees.

Mixer Fig. 8 shows step C, where the print job is sent to the printer, and step D, where the printer recognizes the print job file as a microcode update file. Because the printer described by Mixer is a conventional printer, capable of receiving a print job, it is reasonable to conclude that at step D in Fig. 8, if the printer disclosed by Mixer does not recognize the print job as a microcode update file, the printer would simply treat the file as a standard print job, and perform standard print processing

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 30-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over the

combination of Mixer (US 7246348 B1) and Weyand et al. (US 6930785 B1).

Regarding **claims 30 and 36**, the combination of Mixer and Weyand as applied to claim

10 above discloses a firmware updating system and corresponding method comprising a server

that distributes a content (Mixer Fig. 2, numeral 80), a receiving apparatus that receives the

content from the server (Mixer Fig. 2, numeral 75), and a printing apparatus (Mixer Fig. 2,

numeral 47) that operates according to a firmware stored in a ROM ("the non-volatile memory

60 includes programs, and in particular includes microcode for directing the activities of the

processor" at Mixer column 3, line 36) and prints a print content inputted from the receiving

apparatus ("an input output (I/O) interface 75 for receiving print job files" at Mixer column 3,

line 13. "In accordance with the teachings of this invention a print job file may also include new

microcode, also referred to as a microcode update, for updating or extending the current

microcode in the non-volatile memory" at Mixer column 4, line 14), wherein the server includes:

a content generation unit operable to generate a content that includes a firmware update file, as a

print content which is not to be displayed, the firmware update file being a file in which data for

updating a firmware of the printing apparatus is described; and a content sending unit operable to

send the content to the receiving apparatus (Mixer Fig. 8, step C "send to printer…"), the

receiving apparatus includes: a content reception unit operable to receive the content from said

content sending unit (Fig. 2, numeral 75); and a print output unit operable to output, to the

printing apparatus, the print content included in the received content, without performing

processing related to display, when the print instruction is obtained (Mixer Fig. 2, numeral 65

"printing engine"), and the printing apparatus includes: a judgment unit operable to judge

whether or not the print content outputted by the receiving apparatus is a firmware update file or

a file to be printed (see Mixer Fig. 8, step D "Recognize print job as a microcode update file");

an updating unit operable to update the firmware using the print content (see Fig. 8, steps E-I), in

the case where the print content is a firmware update file according to the judgment; and a

printing unit operable to print the print content in the case where the print content is the file to be

printed (As shown above, the firmware update is contained in a print job file. If it is judged that

the print job contains a firmware update, update processing is performed. If there is no update

contained in the print job file, it is treated as a standard print job and printed).

Mixer does not explicitly disclose a print instruction obtainment unit operable to obtain,

from a user, an instruction to print a print content.

Weyand teaches displaying an instruction for urging a user to update the firmware of a

printing device, and waiting for confirmation from the user before performing the firmware

update ("Alternatively, a notice requesting user permission to install the upgrade could be

generated between points 36 and 40").

It would have been obvious at the time the invention was made to one of ordinary skill in

the art to modify the firmware update system disclosed by Mixer to request user confirmation

before performing a firmware update as taught by Weyand, so that all firmware updates could be

approved by a system administrator.

Regarding **claims 31 and 37**, Mixer discloses that the judgment unit searches for a

firmware update command described in the print content, and judges said print content as a

firmware update file, in a case where the firmware update command is found ("FIG. 5 shows a

diagram of a presently preferred embodiment of the file header 100 for the print job file 97. The

first nine bytes 115 of the file header 100 include a known indicator of the start of the print job

file known as "User Exit Language." The next seven bytes 120 are known as lead-in and include

three hexadecimal characters and the four letters "C", "O", "D", and "E". Upon identifying the

first 16 bytes as having this particular structure, the processor recognizes that a microcode update

file is included in the print job file" at column 4, line 35).

Regarding **claim 32 and 38**, Mixer discloses that the print output unit outputs, to the

printing apparatus, the print content together with a file name of said print content, and the

judgment unit judges the print content to be a firmware update file, in a case where the file name

of the print content outputted by the receiving apparatus is a file name specified in advance (see

grounds for rejection for claim 31, filename is "CODE").

Regarding **claim 33 and 39**, Mixer discloses that the judgment unit further has a

confirmation unit operable to search for a firmware update command described in the print

content, and confirm that said print content is a firmware update file, in a case where the

firmware update command is found (see Fig. 5, update command is <ESC><SOH><STX>), and

the updating unit updates the firmware using the print content, after the confirmation (see

grounds for rejection for claim 31).

Regarding **claim 34 and 40**, Mixer discloses that the receiving apparatus further includes

a content storage unit operable to store each received content in a specified area (see Fig. 8,

content is downloaded to volatile memory), and the updating unit further includes a file

obtainment unit operable to obtain, from the specified area in the content storage unit, another

firmware update file specified in the print content (As shown in Fig. 4, the firmware update

contains multiple modules, as specified in the head as shown in Fig. 5), and updates the firmware

using data included in the obtained file (Fig. 8, steps H, I).

Regarding **claim 35 and 41**, Mixer discloses that the printing apparatus further includes a

firmware storage unit having two ROMs (As shown in Fig. 2, there are multiple ROMs: boot

ROM 61, and one or multiple memories 62), and operates according to a firmware stored in one

ROM (the system will operate according to code stored in "boot ROM"), and the updating unit

updates the firmware of the printing apparatus by storing a firmware whose version is updated in

the other ROM (firmware is updated in memory 62).

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to NATHAN K. TYLER whose telephone number is (571)270-

1584. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/   /Nathan Tyler/
Supervisory Patent Examiner, Art Unit 2625   Examiner
                                                            Art Unit 2625